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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,069	11/21/2003	Brian Wehrung		2247

7590 12/12/2007
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EXAMINER

SHAPIRO, JEFFERY A

ART UNIT	PAPER NUMBER
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3653

MAIL DATE	DELIVERY MODE
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12/12/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/719,069

Applicant(s)

WEHRUNG ET AL.

Examiner

Jeffrey A. Shapiro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8 and 30-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8 and 30-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/23/07 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 8, 30-32 and 34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hogg et al (US 7,269,475 B1) in view of Jackson et al (US 6,039,316).
5. Regarding Claims 8 and 35-37, Hogg discloses a computer-based control system that controls a number of track zones. For example, each zone in the form of element (630) has a controlling agent, as illustrated in figure 6 of Hogg. Each agent shares information with other agents along with global requirements as obtained from global controller (602). See Hogg at col. 7, lines 1-52. Therefore, if one element is controlled by one agent, and the agent's instructions to that element (630) are calculated by input and instructions/requirements from both a neighboring agent, i.e., track zone, and from the global controller, i.e. the control logic computer. Hogg discloses a carrier in the form of transport object (102).

Hogg does not expressly disclose, but Jackson discloses a director controller in the form of second and third level computation elements which controls "zones of control" below it for the purpose of optimally routing the carrier in the material transport system in a multi-hierarchical control scheme that "dynamically adapts to accommodate different sized objects." See figures 6-9 of Jackson and col. 8, lines 15-20.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have incorporated the director controllers in a multi-hierarchical form of control in Hogg's material transport system, as taught by Jackson, for the purpose of allowing Hogg's system to dynamically adapt to accommodate different sized objects/carriers.

Regarding Claims 30-32, note that first, second and third control threads are equivalent to Hogg's computational agents.

Regarding Claim 34, note that it would have been obvious for Hogg's carrier to move anything required of a particular manufacturing production task, as required.

6. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hogg et al (US 7,269,475 B1) in view of Jackson et al (US 6,039,316) and further in view of Modery (US 4,766,547).

Hogg discloses the transporter described above.

Regarding Claim 33, note that the at least one drive motor is construed as Hogg's air pump that pumps a jet of air from the surface of a particular track zone. Note also that such a track zone also is disclosed as having a sensor, and that by the director moves the jet such that it moves the carrier in a rotating motion.

Although Hogg does not expressly disclose a load port transfer device, note that such a device can be construed as a track zone that bridges two or more linear tracks. See, for example, figure 7 of Modery.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have used a load transport device to bridge multiple tracks such as Hogg's, as taught by Modery.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yotsumoto et al '983; Itoh '888; Horn '340; Pfeiffer '463 and Hall '906 is cited as other transport systems having hierarchical control where individual

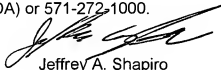
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track zones are controlled by both input from neighboring tracks as well as a global controller.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey A. Shapiro whose telephone number is (571)272-6943. The examiner can normally be reached on Monday-Friday, 9:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick H. Mackey can be reached on (571)272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jeffrey A. Shapiro
Examiner
Art Unit 3653

December 10, 2007